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EXAMINER

KURTZ, BENJAMIN M

ART UNIT	PAPER NUMBER
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1797

NOTIFICATION DATE	DELIVERY MODE
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12/04/2007

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/765,962	Applicant(s) GIESEL ET AL.	
	Examiner Benjamin Kurtz	Art Unit 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 October 2007.
 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2,3,5-20 and 22-25 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) ☐ Claim(s) 2,3 and 16-18 is/are allowed.
 6) ☒ Claim(s) 5-15, 19, 20 and 22-25 is/are rejected.
 7) ☐ Claim(s) _____ is/are objected to.
 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
 10) ☒ The drawing(s) filed on 29 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

1. Claims 24 and 25 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Regarding claim 24, applicant has claimed the synthetic material of the apparatus has a lower density than the amalgam. Applicant's specification only states that known methods of removing amalgam from sewage is to use a centrifuge because of the density of the amalgam (pg. 1, 3rd paragraph). The specification does not offer a teaching comparing the density of the material of the apparatus and the density of the amalgam.

Regarding claim 25, applicant has claimed the synthetic material is usable in an injected molding process. The specification provides no support for this limitation.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Art Unit: 1797

2. Claim 25 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Applicant has recited the synthetic material is usable in an injected molding process. It is unclear from the disclosure how a synthetic material usable in an injected molded process differs from a synthetic material that is not. For examination purposes any synthetic material is assumed to be usable in an injection molding process.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 22, 5-10, 14, 15, 19, 20 and 23-25 are rejected under 35 U.S.C. 102(b) as being anticipated by Lee et al. US 5 700 378.

Regarding claims 22, 23 and 25, Lee teaches an apparatus having a flow zone and a sedimentation zone arranged in a housing the housing comprising: an aperture for supply (56) an aperture for discharge (70), an inlet chamber (62) and passage chamber containing a separator (14) made of a plurality of layers of synthetic foil, an outlet chamber (18) and stands, the separator being a form body which can be streamed through and includes several tight fitting layers of wound structured synthetic foil, the form body being fixed in the passage chamber, whereby the apparatus consists

of shreddable, recyclable synthetic material, the housing being sealed in a liquid proof manner except for the supply and discharge apertures (fig. 5).

Regarding claim 5-10, 14, 15, 19 and 20, Lee further teaches the structured synthetic foil is a structured foil and a plain foil that are arranged alternately (fig. 6d); the structured synthetic foil is a wound structured foil (fig. 6d); the layers of structured synthetic foil are tubular elements made of structured foil (fig. 6d); the structured synthetic foil provides continuous longitudinal structures as seen in the flow direction (fig. 6d); the structured synthetic foil provides a plisse structure consisting of triangles (fig. 6d); the structured synthetic foil provides honeycombed structures (fig. 6d); the uppermost position of the passage chamber above the separator, a vent channel (66) is arranged which has a connection to the outlet in the outlet chamber (fig. 5); the outlet provides a flow regulator (72) (fig. 5); the cross-sectional area of the separator is round, oval or square (fig. 6b-6d, col. 4, lines 66-67); and the cross-sectional area of the housing is square (fig. 4).

Regarding claim 24, Lee further teaches the apparatus is made of a synthetic material that has a lower density than amalgam (col. 5, lines 1-8).

4. Claims 22, 8, 10-13 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Ernryd WO 98/46324.

Regarding claim 22 and 25, Ernryd teaches an apparatus for separating amalgam from dental sewage the apparatus having a flow zone and a sedimentation zone arranged in a housing (1) the housing comprising: an aperture (2) for sewage supply, an aperture (3) for sewage discharge, an inlet chamber (4), a passage chamber

containing a separator (10) made of a plurality of layers of synthetic foil, an outlet chamber, and stands, the separator being a form body which can be streamed through and includes several tight fitting layers of structured synthetic foil, the form body being fixed in the passage chamber, whereby the apparatus consists of shredable recyclable synthetic material, and the housing is sealed in a liquid-proof manner except for the sewage supply and discharge apertures (fig. 1, page 2, lines 15-28).

Regarding claims 8, 10-13, and 15, Ernryd further teaches the structured synthetic foil provides continuous longitudinal structures as seen in the flow direction of the sewage (fig. 1); the structured synthetic foil provides lamellar (thin plate) structures (fig. 1); the sedimentation surfaces of the structured foil are roughened by the addition of bumps (page 2, lines 15-28); a perforated plate 5 is arranged between the inlet chamber and the passage chamber, the holes provide sinkings on the side that faces the flow (fig. 1); the inlet chamber provides a flow guidance element (5) that is arranged in the upper area of the inlet chamber (fig. 1); and the sewage outlet provides a flow regulator (17).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 23, 5-7, 9, 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ernryd WO 98/46324 in view of Lee '378.

Regarding claim 23, Ernryd teaches the apparatus of claim 22 but does not teach the separator including layers of wound structured synthetic foil. Lee teaches a separator (14) being a form body, which can be streamed through and includes several tight fitting layers of wound structured synthetic foil (40) (fig. 6d). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the separator structure of Lee because it efficiently separates difficult to separate particles (col. 2, lines 17-18).

Regarding claims 5-7 and 9, Lee further teaches the separator (14) having element (16) formed of structured foil (40) having a plisse structure consisting of triangles where a structured foil and a plain foil are arranged alternately, is a wound structure, and is a tubular element made of structured foil (fig. 6d). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the separator structure of Lee because it efficiently separates difficult to separate particles (col. 2, lines 17-18).

Regarding claims 19 and 20, Ernryd further teaches a cross-section of the separator and of the housing but does not teach a particular cross-section area for either the separator or the housing. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have made the separator or the housing of Ernryd having the cross sectional area being round, oval or square because it has been held to be the configuration of an invention was a matter of choice which a person of ordinary skill in the art would have found obvious absent persuasive evidence that the

Art Unit: 1797

particular configuration of the claimed invention is significant. *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966).

6. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ernryd '324 in view of Kopp US 1 902 171. Ernryd teaches the apparatus of claim 22 but does not teach a vent channel being arranged in connection to the sewage outlet. Kopp teaches an apparatus having a housing comprising an inlet chamber (2), a passage chamber (3) containing a separator (13), and an outlet chamber (4), wherein in the uppermost position of the passage chamber above the separator a vent channel (18) is arranged which has a connection to the sewage outlet (19) in the outlet chamber (fig. 1). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the vent channel of Kopp to facilitate the flow of sewage in the event the separator become clogged (pg. 2, lines 38-47).

Allowable Subject Matter

7. Claims 2-3 and 16-18 are allowed.

Response to Arguments

8. Applicant's arguments filed 10/23/07 have been fully considered but they are not persuasive. Applicant argues that Lee is not designed for separating amalgam. Lee discloses all of the recited features of the claim. What the apparatus is for is a recitation of intended use that does not further structurally limit the apparatus. Lee teaches the apparatus made of a plastic material; plastics are well known to be recyclable and a material being shredable does not further structural limit the material. Neither being recyclable nor shredable further structurally limit the apparatus.

Applicant also argues that Ernryd does not teach a plastic material. This limitation is not present in the claim. Applicant also argues that the apparatus of Ernryd is not designed to be shredded and recycled. These limitations do no further structurally limit the apparatus and are a recitation of intended use.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Benjamin Kurtz whose telephone number is 571-272-8211. The examiner can normally be reached on Monday through Friday 8:00am to 4:00pm.

Art Unit: 1797

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Sample can be reached on 571-272-1376. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Benjamin Kurtz
Patent Examiner
Art Unit 1797

11/27/07

A handwritten signature in black ink, appearing to read 'Krishnan Menon', written in a cursive style.

KRISHNAN MENON
PRIMARY EXAMINER